

01/10/02
35 U.S. PTOUTILITY
PATENT APPLICATION
TRANSMITTAL

Attorney Docket No.

500792.03

January 10, 2002

First Inventor or Application Identifier

Timothy B. Cowles et al.

Title

REFRESH CONTROLLER AND ADDRESS REMAPPING
CIRCUIT AND METHOD FOR DUAL MODE FULL/REFRESH
DENSITY DRAMS

(Only for nonprovisional applications under 37 CFR § 1.53(b))

Express Mail Label No.

EL 872041372 US

| | | |
|--|--|---|
| APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents. | | ADDRESS TO: |
| | | Box Patent Application Commissioner of Patents Washington, D.C. 20231 |

| | |
|---|---|
| 1. <input checked="" type="checkbox"/> Fee Transmittal Sheet (+ copy) (Submit an original and a duplicate for fee processing) | 7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) |
| 2. <input type="checkbox"/> Applicant(s) Claim(s) Small Entity Status | 8. <input type="checkbox"/> Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) |
| 3. <input checked="" type="checkbox"/> Specification [Total Pages] 40 (preferred arrangement set forth below) - Descriptive Title of the Invention - Cross References to Related Applications - Statement Regarding Fed sponsored R & D - Reference to Microfiche Appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure | a. <input type="checkbox"/> Computer-Readable Form (CRF) |
| 4. <input checked="" type="checkbox"/> Drawing(s) (35 USC 113) [Total Sheets] 4 | b. <input type="checkbox"/> Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper |
| 5. <input checked="" type="checkbox"/> Oath or Declaration [Total Pages] 3 | c. <input type="checkbox"/> Statement verifying identity of above copies |
| a. <input type="checkbox"/> Newly executed (original or copy) | 9. <input type="checkbox"/> Certification Under 35 U.S.C. 122(b)(2)(B)(i) |
| b. <input checked="" type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. <input type="checkbox"/> <u>DELETION OF INVENTOR(S)</u> Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b) | 10. <input type="checkbox"/> Assignment Papers (cover sheet & document(s)) |
| 6. <input checked="" type="checkbox"/> Application Data Sheet (37 C.F.R. 1.76) | 11. <input checked="" type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee) <input checked="" type="checkbox"/> Power of Attorney |
| | 12. <input type="checkbox"/> English Translation Document (if applicable) |
| | 13. <input checked="" type="checkbox"/> Preliminary Amendment Total Pages <u>2</u> |
| | 14. <input checked="" type="checkbox"/> Return Receipt Postcard |
| | 15. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations |
| | 16. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed) |
| | 17. <input checked="" type="checkbox"/> Other: <u>Certificate of Express Mail</u> <u>Check</u> |

18. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information below and in a preliminary amendment

 Continuation Divisional Continuation-In-Part (CIP) of prior Application No. 09/803,365 Filed March 8, 2001Prior application information: Examiner Van Thu Nguyen Group / Art Unit 2824 Incorporation By Reference (useable if box 5b is checked)

The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 5b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

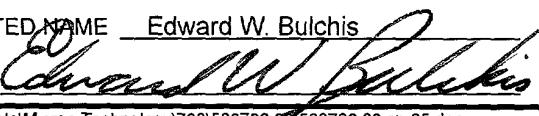
CORRESPONDENCE ADDRESS

Edward W. Bulchis, Esq.
Dorsey & Whitney LLP
1420 Fifth Avenue, Suite 3400
Seattle, Washington 98101-4010
(206) 903-8800 phone
(206) 903-8820 fax

Customer No. 27,076

TYPED or PRINTED NAME Edward W. Bulchis

REGISTRATION NO. 26,847

SIGNATURE Date January 9, 2002

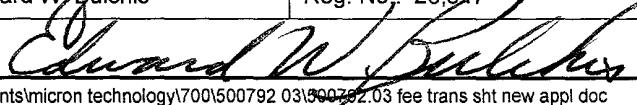
FEE TRANSMITTAL SHEET (FOR FY 2001)

| Complete if Known | |
|----------------------|--------------------------|
| Express Mail No. | EL 872041372 US |
| Filing Date | Concurrently Herewith |
| First Named Inventor | Timothy B. Cowles et al. |
| Group Art Unit | Not Yet Assigned |
| Examiner | Not Yet Assigned |
| Atty. Docket Number | 500792.03 |

| METHOD OF PAYMENT (Check One) | | FEE CALCULATION (Continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------|---|----------|--|--------------|----------|----------|-----------------|----------|----------|----------|-----------------|------------------------|------|-----|-----|--|-------------------------------------|-----|-----|-----|--|--------------------------------------|--|-----|-----|---|---|-----|---------------------------|-----|---|---|-----|-------|--|----|-----|-----|-----|-----|--------------------------------------|----|-----|-----|-----|----|--|----|-----|-----|-----|-----|--|----|-----|-----|-----|-----|--|----|-----|-------|-----|-----|--|----|-----|-------|-----|-----|--|----|-----|-----|-----|-----|--|----|-----|-----|-----|-----|--------------------------|----|-----|-----|-----|----|-------------------------|----|-----|-----|-----|----|----------------------------------|----|-----|-------|-----|-----|------------------------------------|----|-----|-------|-----|-----|--|----|-----|-----|-----|-----|-------------------------------------|----|-----|-----|-----|-----|-------------------------------|----|-----|----|-----|----|---|----|-----|-----|-----|-----|-------------------|----|-----|----|----|----|--|----|-----|-----|-----|-----|---|----|---------------------|--|--|--|--------------|-----|--|--|--|--|--------------------------|-------|
| 1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fee required under 37 C.F.R. §§ 1.16 and 1.17 and 1.136(a)(3) and credit any over payments to Deposit Account No.: 50-1266; Deposit Account Name: DORSEY & WHITNEY LLP | | 3. ADDITIONAL FEES <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Large Entity</th> <th style="text-align: left;">Small Entity</th> <th></th> <th></th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Description</th> <th>Fee paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - Late filing fee or oath</td><td>\$</td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td>\$</td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td>\$</td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For Filing a Request for Reexamination</td><td>\$</td></tr> <tr><td>195</td><td>300</td><td>196</td><td>300</td><td>Publication (early or Republication)</td><td>\$</td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td>\$</td></tr> <tr><td>116</td><td>400</td><td>216</td><td>200</td><td>Extension for reply within 2nd month</td><td>\$</td></tr> <tr><td>117</td><td>920</td><td>217</td><td>460</td><td>Extension for reply within 3rd month</td><td>\$</td></tr> <tr><td>118</td><td>1,440</td><td>218</td><td>720</td><td>Extension for reply within 4th month</td><td>\$</td></tr> <tr><td>128</td><td>1,960</td><td>280</td><td>980</td><td>Extension for reply within 5th month</td><td>\$</td></tr> <tr><td>120</td><td>320</td><td>220</td><td>160</td><td>Filing a brief in support of an appeal</td><td>\$</td></tr> <tr><td>121</td><td>280</td><td>270</td><td>140</td><td>Request for oral hearing</td><td>\$</td></tr> <tr><td>148</td><td>110</td><td>248</td><td>55</td><td>Terminal Disclaimer Fee</td><td>\$</td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive – unavoidable</td><td>\$</td></tr> <tr><td>141</td><td>1,280</td><td>241</td><td>640</td><td>Petition to revive – unintentional</td><td>\$</td></tr> <tr><td>142</td><td>1,280</td><td>242</td><td>640</td><td>Utility/Reissue issue fee (+ advance copies)</td><td>\$</td></tr> <tr><td>143</td><td>460</td><td>243</td><td>230</td><td>Design issue fee (+ advance copies)</td><td>\$</td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td>\$</td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td>\$</td></tr> <tr><td>126</td><td>180</td><td>126</td><td>180</td><td>Submission of IDS</td><td>\$</td></tr> <tr><td>581</td><td>40</td><td>81</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td>\$</td></tr> <tr><td>179</td><td>740</td><td>279</td><td>370</td><td>Request for Continued Examination (RCE)</td><td>\$</td></tr> <tr> <td colspan="4" style="text-align: center;">Other fee (specify)</td> <td style="text-align: right;">Subtotal (3)</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Total Amount of Payment:</td> <td style="text-align: right;">\$824</td> </tr> </tbody> </table> | | Large Entity | Small Entity | | | Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee paid | 105 | 130 | 205 | 65 | Surcharge - Late filing fee or oath | \$ | 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet | \$ | 139 | 130 | 139 | 130 | Non-English specification | \$ | 147 | 2,520 | 147 | 2,520 | For Filing a Request for Reexamination | \$ | 195 | 300 | 196 | 300 | Publication (early or Republication) | \$ | 115 | 110 | 215 | 55 | Extension for reply within first month | \$ | 116 | 400 | 216 | 200 | Extension for reply within 2 nd month | \$ | 117 | 920 | 217 | 460 | Extension for reply within 3 rd month | \$ | 118 | 1,440 | 218 | 720 | Extension for reply within 4 th month | \$ | 128 | 1,960 | 280 | 980 | Extension for reply within 5 th month | \$ | 120 | 320 | 220 | 160 | Filing a brief in support of an appeal | \$ | 121 | 280 | 270 | 140 | Request for oral hearing | \$ | 148 | 110 | 248 | 55 | Terminal Disclaimer Fee | \$ | 140 | 110 | 240 | 55 | Petition to revive – unavoidable | \$ | 141 | 1,280 | 241 | 640 | Petition to revive – unintentional | \$ | 142 | 1,280 | 242 | 640 | Utility/Reissue issue fee (+ advance copies) | \$ | 143 | 460 | 243 | 230 | Design issue fee (+ advance copies) | \$ | 122 | 130 | 122 | 130 | Petitions to the Commissioner | \$ | 123 | 50 | 123 | 50 | Petitions related to provisional applications | \$ | 126 | 180 | 126 | 180 | Submission of IDS | \$ | 581 | 40 | 81 | 40 | Recording each patent assignment per property (times number of properties) | \$ | 179 | 740 | 279 | 370 | Request for Continued Examination (RCE) | \$ | Other fee (specify) | | | | Subtotal (3) | \$0 | | | | | Total Amount of Payment: | \$824 |
| Large Entity | Small Entity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 105 | 130 | 205 | 65 | Surcharge - Late filing fee or oath | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 139 | 130 | 139 | 130 | Non-English specification | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 147 | 2,520 | 147 | 2,520 | For Filing a Request for Reexamination | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 195 | 300 | 196 | 300 | Publication (early or Republication) | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 115 | 110 | 215 | 55 | Extension for reply within first month | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 116 | 400 | 216 | 200 | Extension for reply within 2 nd month | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117 | 920 | 217 | 460 | Extension for reply within 3 rd month | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 118 | 1,440 | 218 | 720 | Extension for reply within 4 th month | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 128 | 1,960 | 280 | 980 | Extension for reply within 5 th month | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 320 | 220 | 160 | Filing a brief in support of an appeal | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 121 | 280 | 270 | 140 | Request for oral hearing | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 148 | 110 | 248 | 55 | Terminal Disclaimer Fee | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 140 | 110 | 240 | 55 | Petition to revive – unavoidable | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 141 | 1,280 | 241 | 640 | Petition to revive – unintentional | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 142 | 1,280 | 242 | 640 | Utility/Reissue issue fee (+ advance copies) | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 143 | 460 | 243 | 230 | Design issue fee (+ advance copies) | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 122 | 130 | 122 | 130 | Petitions to the Commissioner | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 123 | 50 | 123 | 50 | Petitions related to provisional applications | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 126 | 180 | 126 | 180 | Submission of IDS | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 581 | 40 | 81 | 40 | Recording each patent assignment per property (times number of properties) | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 179 | 740 | 279 | 370 | Request for Continued Examination (RCE) | \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other fee (specify) | | | | Subtotal (3) | \$0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Total Amount of Payment: | \$824 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. <input checked="" type="checkbox"/> Check Enclosed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FEE CALCULATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. BASIC FILING FEE <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Large Entity</th> <th style="text-align: left;">Small Entity</th> <th></th> <th></th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr><td>101</td><td>740</td><td>201</td><td>370</td><td><input checked="" type="checkbox"/> Utility Filing Fee</td></tr> <tr><td>106</td><td>330</td><td>206</td><td>165</td><td><input type="checkbox"/> Design Filing Fee</td></tr> <tr><td>108</td><td>740</td><td>208</td><td>370</td><td><input type="checkbox"/> Reissue Filing Fee</td></tr> <tr><td>114</td><td>160</td><td>214</td><td>80</td><td><input type="checkbox"/> Provisional Filing Fee</td></tr> </tbody> </table> | | | | Large Entity | Small Entity | | | Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | 101 | 740 | 201 | 370 | <input checked="" type="checkbox"/> Utility Filing Fee | 106 | 330 | 206 | 165 | <input type="checkbox"/> Design Filing Fee | 108 | 740 | 208 | 370 | <input type="checkbox"/> Reissue Filing Fee | 114 | 160 | 214 | 80 | <input type="checkbox"/> Provisional Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Entity | Small Entity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 101 | 740 | 201 | 370 | <input checked="" type="checkbox"/> Utility Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 106 | 330 | 206 | 165 | <input type="checkbox"/> Design Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 108 | 740 | 208 | 370 | <input type="checkbox"/> Reissue Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 114 | 160 | 214 | 80 | <input type="checkbox"/> Provisional Filing Fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subtotal (1) \$ 740 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. EXTRA CLAIM FEES <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Current Claims</th> <th style="text-align: left;">Prior</th> <th style="text-align: left;">Extra</th> <th style="text-align: left;">Fee</th> <th style="text-align: left;">Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>12</td> <td>-</td> <td>20</td> <td>= 0 x \$18 = \$0</td> </tr> <tr> <td>Ind.</td> <td>4</td> <td>-</td> <td>3</td> <td>= 1 x \$84 = \$84</td> </tr> <tr> <td colspan="4"></td> <td>IMultiple Dependent Claims x \$ = \$</td> </tr> </tbody> </table> | | | | Current Claims | Prior | Extra | Fee | Fee Paid | Total | 12 | - | 20 | = 0 x \$18 = \$0 | Ind. | 4 | - | 3 | = 1 x \$84 = \$84 | | | | | IMultiple Dependent Claims x \$ = \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current Claims | Prior | Extra | Fee | Fee Paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 12 | - | 20 | = 0 x \$18 = \$0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ind. | 4 | - | 3 | = 1 x \$84 = \$84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | IMultiple Dependent Claims x \$ = \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subtotal (2) \$ 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Entity Small Entity <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td></tr> <tr><td>102</td><td>84</td><td>202</td><td>42</td><td>Independent claims in excess of 3</td></tr> <tr><td>104</td><td>280</td><td>204</td><td>140</td><td>Multiple dependent Claim</td></tr> <tr><td>109</td><td>80</td><td>209</td><td>40</td><td>Reissue independent claims over original patent</td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>Reissue claims in excess of 20 and over original patent</td></tr> </tbody> </table> | | | | Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | 103 | 18 | 203 | 9 | Claims in excess of 20 | 102 | 84 | 202 | 42 | Independent claims in excess of 3 | 104 | 280 | 204 | 140 | Multiple dependent Claim | 109 | 80 | 209 | 40 | Reissue independent claims over original patent | 110 | 18 | 210 | 9 | Reissue claims in excess of 20 and over original patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 103 | 18 | 203 | 9 | Claims in excess of 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 102 | 84 | 202 | 42 | Independent claims in excess of 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 104 | 280 | 204 | 140 | Multiple dependent Claim | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 109 | 80 | 209 | 40 | Reissue independent claims over original patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 | 18 | 210 | 9 | Reissue claims in excess of 20 and over original patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Submitted by:

Name: Edward W. Bulchis Reg. No.: 26,847 Telephone: (206) 903-8800

Signature:  Date: 

JC355 U.S. PTO
01/10/02

71-14-02

A
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Timothy B. Cowles, Michael A. Attorney Docket No.: 500792.03
Shore and Patrick J. Mullarkey

Filed : January 10, 2002

Title : REFRESH CONTROLLER AND ADDRESS REMAPPING CIRCUIT AND
METHOD FOR DUAL MODE FULL/REDUCED DENSITY DRAMS

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

BOX PATENT APPLICATION
Commissioner for Patents
Washington, DC 20231

Sir:

I hereby certify that the enclosures listed below are being deposited with the United States Postal Service "EXPRESS MAIL Post Office to Addressee" service under 37 C.F.R. § 1.10, Mailing Label Certificate No. EL 872041372 US, on January 10, 2002, addressed to Box Patent Application, Commissioner for Patents, Washington, DC 20231.

Respectfully submitted,
DORSEY & WHITNEY LLP



/ for West Courier

EWB:dms

Enclosures:

Postcard
Check
PTO/SB/05 Utility Patent Application Transmittal
Application Data Sheet
Fee Transmittal Sheet (+ copy)
General Authorization
Preliminary Amendment
Specification, Claims, Abstract (40 pages)
4 Sheets of Drawings (Figures 1-5)
Declaration
Election and Power of Attorney
Information Disclosure Statement
Form PTO-1449